

IN THE SPECIFICATION:

Page 3, second full paragraph at lines 5-28, please delete in its entirety and replace with the following replacement paragraph:

--When the GSH concentration in NK3.3 cells is sufficiently decreased, and hence  $E$  is sufficiently increased, the RB protein in these cells cannot be phosphorylated and the cells cease to proliferate. Dephosphorylated RB traps the transcription factors that are necessary for the generation of the cyclins required for cell proliferation, resulting in a cyclin-poor cell. When GSH is restored,  $E$  is decreased, RB can be phosphorylated and these cells proliferate (Yamauchi et al., 1997). This critical value of  $E$  which induces cessation of cell proliferation (CCP), is designated  $E_{CCP}$ . Arrest in  $G_{1pm}$ , the first part of the  $G_1$  phase of the cell cycle (the postmitotic interval of  $G_1$  that lasts from mitosis to the restriction point R), prevents the cell from proceeding to the second part of the  $G_1$  phase,  $G_{1ps}$ , (the pre-S phase interval of  $G_1$  that lasts from R to S), as well as to S and to subsequent phases of the cell cycle. When this arrest has persisted for a few hours, then the duration required for apoptosis induction is achieved. Consequently, as the cancer cells that are in  $G_{1pm}$ , are unable to enter  $G_0$  (Zetterberg et al., 1995), they will undergo apoptosis. In contrast, normal cells in  $G_{1pm}$  can, and do, enter  $G_0$  and are able to stay there indefinitely. A model of the normal and cancer cell cycles is summarized in ~~Scheme 4 herein in the specification, just before the References section.~~ FIG. 1, which shows the cycle of a normal proliferating cell (black) and of a tumor cell (gray). Notice that the cell-cycle period for the tumor cell is shorter than that of the normal cell by the duration of  $G_{1pm}$ , which the tumor cell skips. The redox potential  $E$  is shown for each type of cell. The redox potential of the normal cell cycles between a high value during

G<sub>1</sub> pm and a low value during G<sub>2</sub> and half of M. The transitions between these two levels are shown as dashed lines because of our lack of knowledge of the precise time profiles of these transitions. The redox potential of the tumor cell is constant throughout the cell cycle and is below the threshold  $E_{ccp}$ . The redox potential of the normal proliferating cell cycles lies above and below the threshold.--

Page 8, after line 22 (after fourth full paragraph of Summary of the Invention), please insert the following paragraph:

--BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a model of the normal and cancer cell cycles.

FIG. 2 is a normalized plot of [GSH] versus C1.--

Page 9, last paragraph, lines 25-30, through page 10, first paragraph, lines 1-10, please delete in its entirety and replace with the following replacement paragraph:

--Furthermore, in a most preferred embodiment, the agents that can be used according to the invention must be in continuous contact with the cancer tissue for an appropriate time such that their effect of maintaining  $E$  above  $E_{ccp}$  is maintained continuously throughout the effective contact time for the duration required to ensure that the cancer cells in the all phases of the cell cycle have had time to reach the G<sub>1pm</sub> phase (the postmitotic interval of G<sub>1</sub> that lasts from the restriction point R to S), and remained in G<sub>1pm</sub> for a time,  $t$ , corresponding to the duration of G<sub>1</sub>, i.e., a few hours (according to Zetterberg et al., 1995, G<sub>1pm</sub> is remarkably constant in length and its duration is about 23% of mean of the normal cell cycle time). This parameter, herein designated  $\tau$ , of

the administration protocol of the agent of the invention, corresponds to at least one, preferably about 2-3, the normal cell-cycle time, T (See FIG. 1 Scheme 1), i-e., from about 15 to about 72 hours. This multiple pass through the cell cycle period is required to allow the cells that were not trapped in  $G_{1pm}$  after T, to become trapped after 2T or 3T. Thus, in cancer cells, CCP is manifested as either cell-cycle arrest or apoptosis, depending upon the time of contact between the agent and the cancer cells.--

Page 38, third full paragraph at lines 18-25, please delete in its entirety and replace with the following paragraph:

--Although the above concentrations are normalized and are not given in absolute values, nevertheless their absolute values can be established through cell-culture experiments. Thus, various concentrations of each kind of agent can be administered and the [GSH] measured. A plot of [GSH] versus agent concentration can be experimentally established to determine the absolute scale of the agent and GSH concentrations. A normalized plot of [GSH] versus C1 is shown in FIG. 2 ~~the accompanying plot~~. Experimental measurements will establish the scale on both the x and the y axes.--

Page 39, please delete in its entirety.

Page 40, plot at top of page, please delete in its entirety.